USACE MILCON Transformation
ACEC-IL/USACE Midwest Regional Meeting
Chicago, IL

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U.S. Army Corps of Engineers

11 April 2008

- **RELEVANT**
- **READY**
- **RESPONSIVE**
- **RELIABLE**

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Overview

- USACE Capabilities
- USACE Program
- MILCON Transformation
- Building Information Modeling
- Extra Credit
- Questions/Comments?

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USACE Capabilities

Military

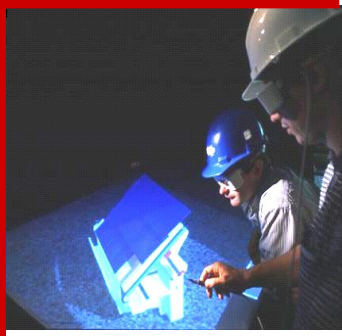
- Military Construction
- Installation Support
- Environmental Restoration
- Stability & Reconstruction Ops

Homeland Security

- Critical Infrastructure
- Anti-Terrorism
- Port Security
- Interagency Partnership

Research & [illegible]

- Military Engineering
- Terrain & Geospatial
- Structures
- Environment
- Water R[illegible]



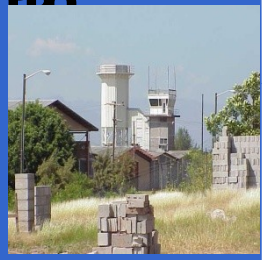
Civil

- Navigation, Hydropower
- Flood control, Shore Protection
- Water Supply, Regulatory
- Recreation, Disaster

Real Estate

- Acquire, Manage & Dispose
- DOD Recruiting Facilities
- Contingency

Support



- DOD
- Federal
- State
- Local
- International

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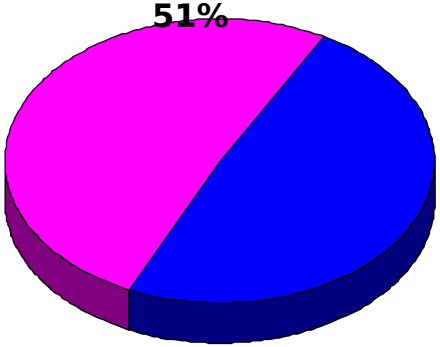
FY07 USACE Program

Civil & Military Budget Authority

Direct vs Reimbursable

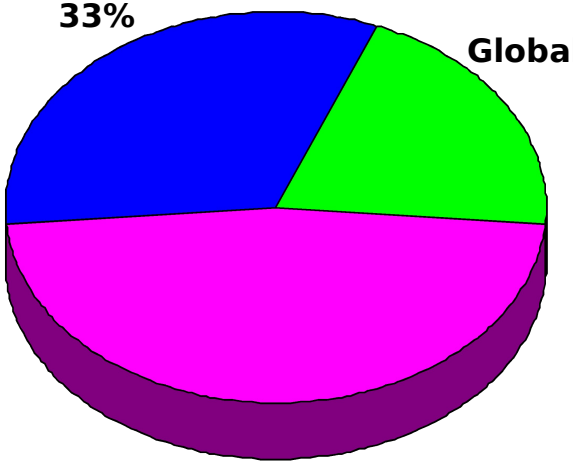
Total $33,543 ($M)



Direct
(GI, CG, O&M, FUSRAP, etc.)
51%

Reimb (Spt for Others)
- Envir Rest Spt
(EPA Superfund)
- Infra Structure
(EPA, Constr Grants)
49%

Civil
$10,292



Reimb Army, Air Force+DOD
(Inst Spt, OMAF, OMA-DERP+RE,
FMS, HN, NAF, etc.)
33%

Global War on Terror
(GWOT)
20%

Direct Army, Air Force+DOD
(MCA, MCAF, BRAC, OMA-DERP+RE,
HAP, etc.)
47%

Military
$23,251

~ One Team – Relevant, Ready, Responsive, Reliable ~

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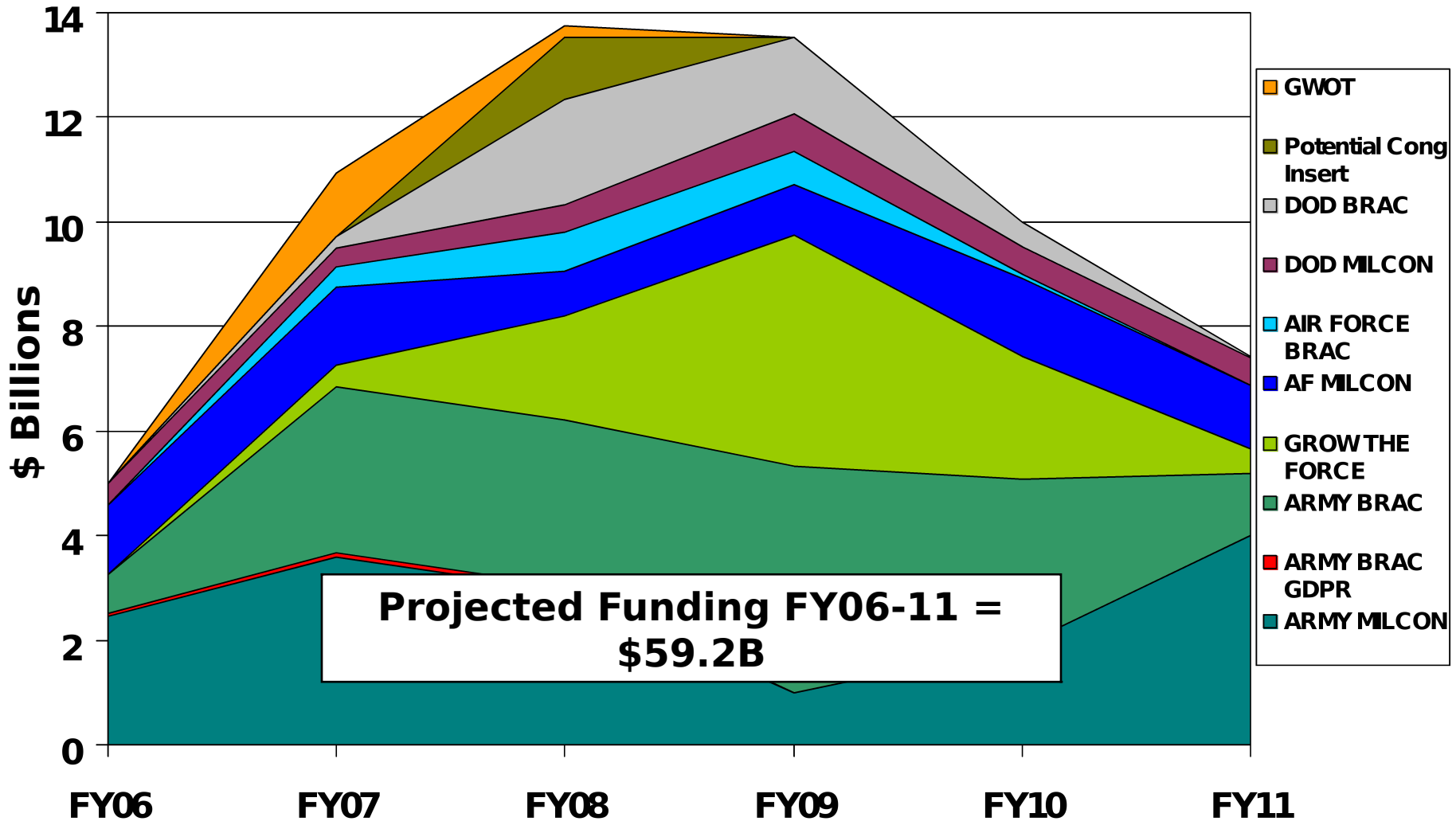
USACE Challenge: Execute $59B MILCON Requirements (FY06-11)



Army Program (incl. BRAC) by MSC (FY07 / FY08-13 POM)

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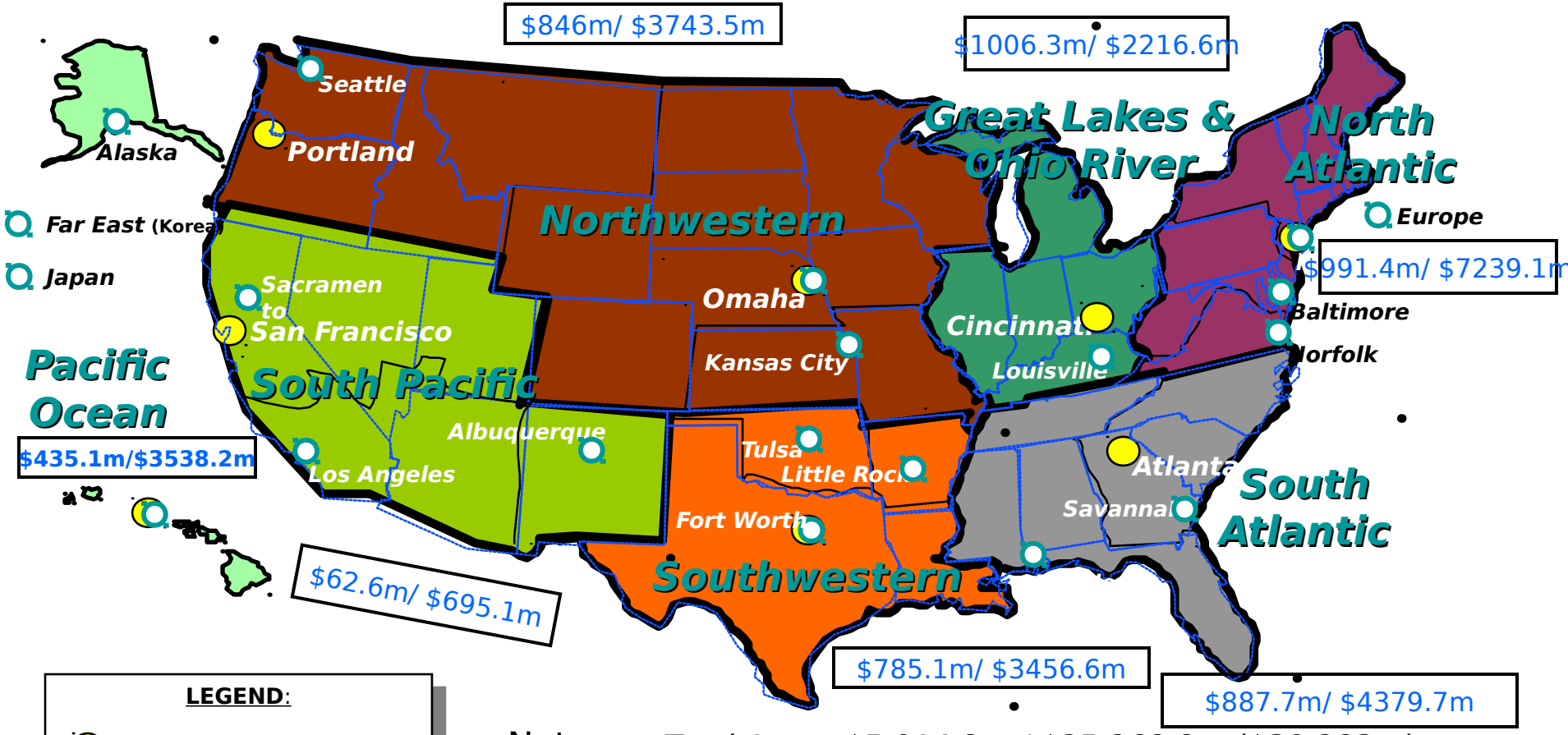

LEGEND:

- Division/Regional HQ location
- Division boundary
- District location
- District boundary
- State boundary

Note: Total Army: $5,014.2 m/ $25,268.8m ($30,283m)

Total DoD/AF/Other: $3,740m/ $19,515m ($23,255m)

Total MILCON Workload:: $8,754.2m/ $44,783.8m ($53,538m)

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MILCON Transformation (MT)

- **Key elements of the strategy**
  - Allow type I - V construction
  - Award Army Standard Facilities from eight (8) Centers of Standardization
  - Work from Design-Build toward Adapt-Build
  - Encourage pre-manufactured solutions
  - Use performance type contracts
  - Drive consistency in process and facilities
  - Capitalize on continuous building concepts

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MILCON Transformation (MT)

- **Objectives**
  - ✓Reduce costs by 15%
  - ✓Reduce construction time by 30%
  - ✓Meet Army sustainability goals (International Building Code, LEED Silver, EPACT 2005, lower lifecycle costs)
  - ✓Deliver full project scope within Programmed Amount
  - ✓Provide a complete Brigade Combat Team complex in 15-24 months
  - ✓Achieve Small Business goals

~ Quality facilities for our Military Members, Civilians, and Families

Milcon Transformation (MT)

- **The Model RFP (transitional)**
  - Provides consistent contracting mechanism throughout USACE
  - Performance based requirements, maximize flexibility, encourages industry innovation
  - Two- Step Best Value Source Selection
  - Does not require previous DoD experience
  - Maximize use of industry standards (IBC)
  - Maximize use of performance specifications

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MILCON Transformation Update

- Success is being achieved
  - 15% Cost savings
  - 30% Time savings
- Existing and new Army standards are being revalidated and established
- RFPs are being developed using model RFP templates and wizard – driving consistency
- All types of construction being utilized
- Centers Of Standardization (COS) are nearing full operational capability
  - Staffing is being synchronized and integrated with entire District staff
- COSs have commenced using BIM
  - Many have models in place for standard facilities
  - Using contractor BIM products to establish adapt-build designs
  - USACE is currently using a Bentley platform

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MILCON Transformation Update (continued)

- Magnitude of small business awards continues to grow
- COS contracts are in place or nearing award
  - Establishing small business contracts
  - Incurring some challenges/protests
  - Geographic District or Regional contracts can be used for awards thru 30 June 2008
- COS and Geographic District relationships are evolving and maturing as workload dictates
  - COSs and Geographic Districts are collaborating for planning, programming and pre-award activities
  - COSs maintain responsibility and accountability for consistent use of standards and contracts
  - COS will establish contracts for standard facilities
  - Task order awards may be accomplished by Geographic Districts
  - Geographic Districts will be responsible for task order contract management and contractor oversight during construction

Army MILCON Cost & BOD Time Growth Overview
Percent of FY05 - 08 Projects Completed & On-Going
Meeting 5% Cost & 10% BOD Time Growth Goals

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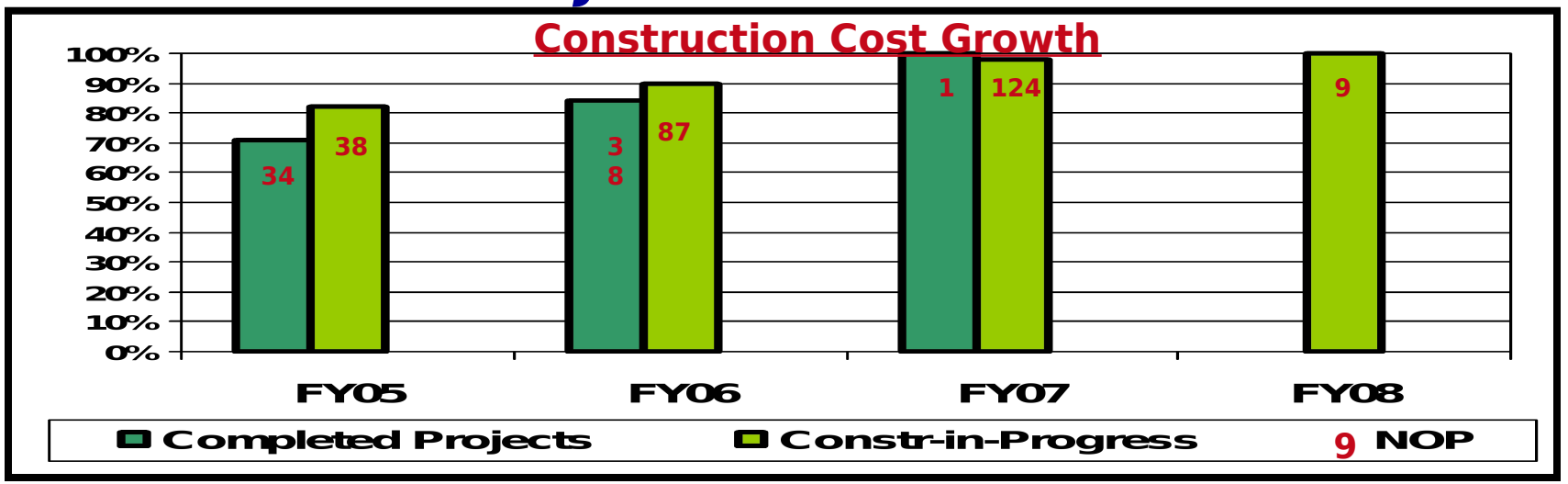
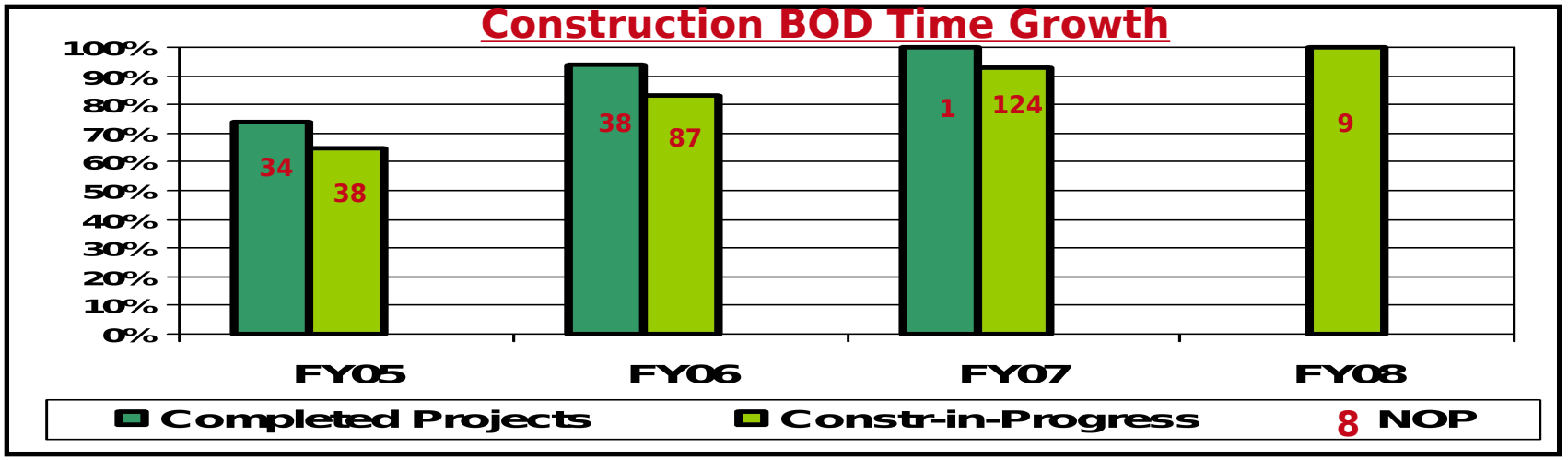
1 Jan – 31 Dec 2007





Project Scope Awarded vs. CWE/PA Ratio
FY06 & 07 CONUS MCA and BRAC05 Projects

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Award Category	FY06			
	Number of Projects	PA Value ($M)	CWE to PA %	% Avg Scope Awarded
Reduced Scope	38	$535	101%	82%
Full Scope / Over PA	7	$20	115%	100%
Full Scope / ≤ PA	27	$665	98%	100%
Total FY06	72	$1,220	99.5%	92%

Award Category	FY07			
	Number of Projects	PA Value ($M)	CWE to PA %	% Avg Scope Awarded
Reduced Scope	26	$1,116	99%	88%
Full Scope / Over PA	12	$170	107%	100%
Full Scope / ≤ PA	31	$1,114	99%	100%
Total FY07	69	$2,400	99%	95%

MILCON Transformation Yielded More Scope for Less Program Value

(FY06 did not have 15% reduction in cost)

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Fort Campbell – Aviation Brigade Barracks

Reduced Construction Time from 720 to 540 Days (Time Savings)
Type II-B Construction - Prefab-Roof Sections & Panelized Walls

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Fort Riley – Custer Hill Barracks

450 Day Construction Period w/ Occupancy 40 Days Early (30% Time Savings)
Type II-A Construction - Pre-Cast Walls, Prefab Metal Stud Construction

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Fort Bliss - (10 Jan 08)

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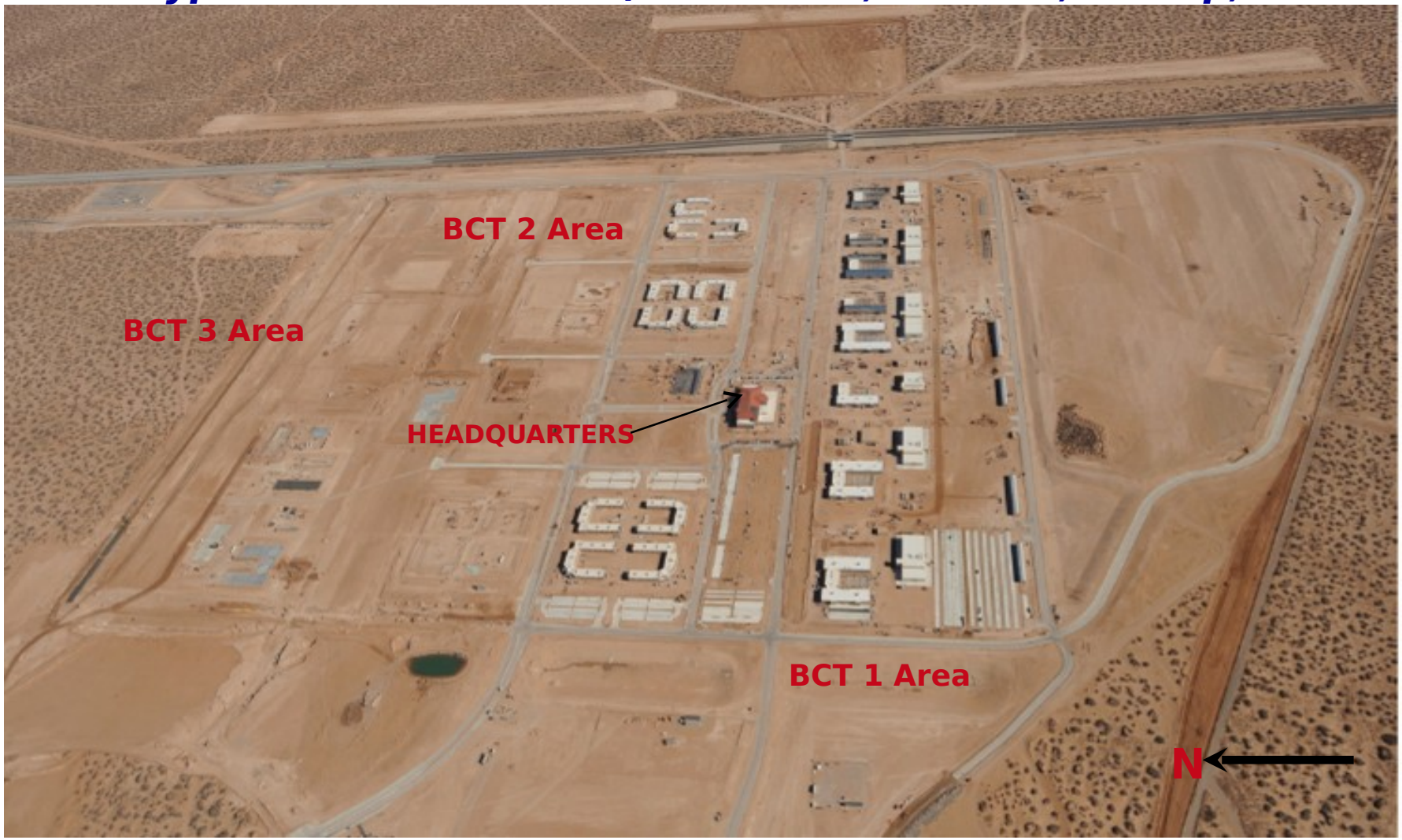
On Track to Deliver One Building per Week for the Next 5 Years

All Types of Construction (Traditional, Modular, Tilt-Up, Metal



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Fort Carson - Brigade & Battalion HQ

Construction Duration is 540 Days (25% Time Savings)

Fort Knox - 600 IBCT Barracks

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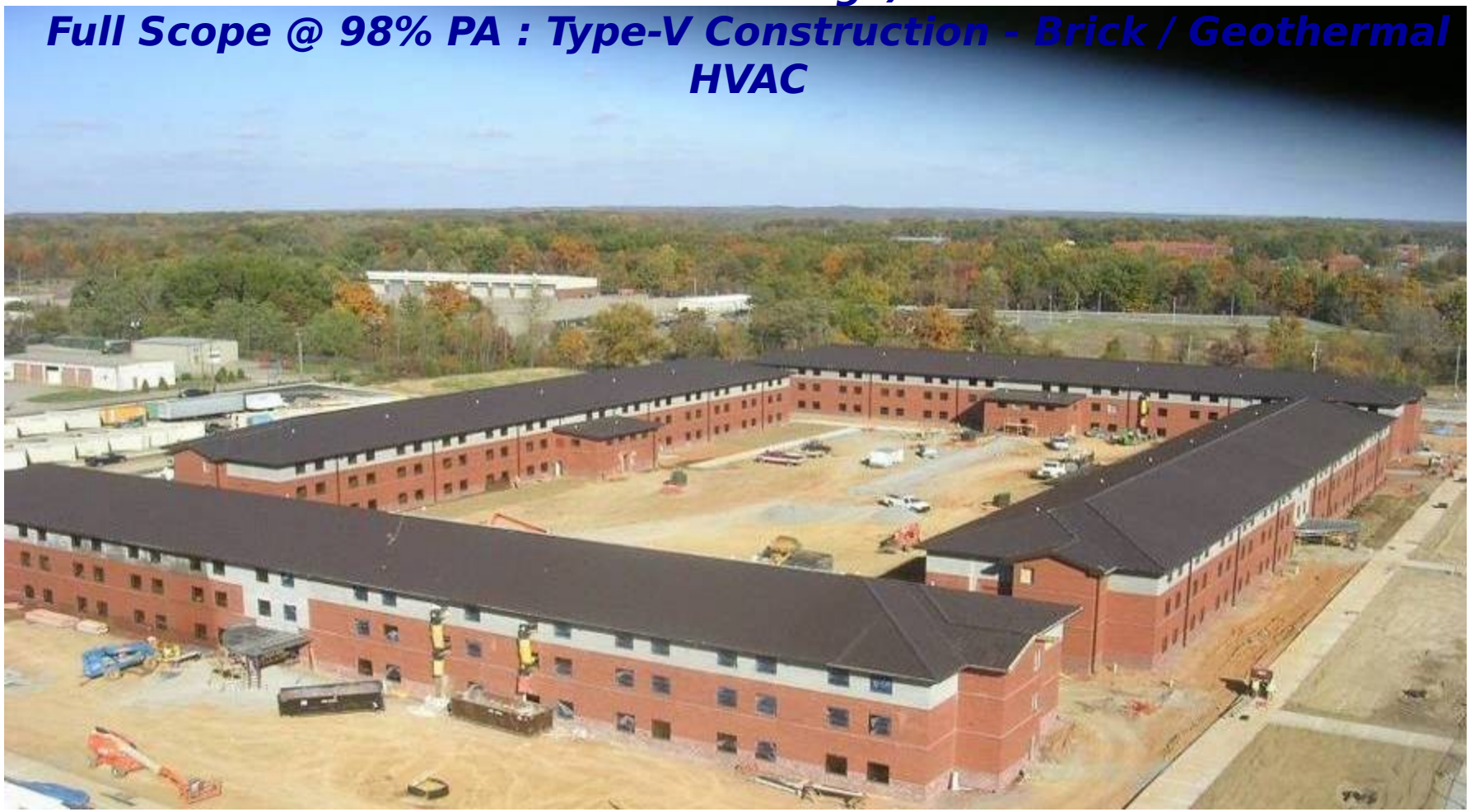
Construction Duration on Track for Less than 24 Months (30% Time Savings)

Full Scope @ 98% PA : Type-V Construction - Brick / Geothermal HVAC



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Why BIM?

- Building Information Modeling (BIM) Supports USACE Strategic Organizational Goals
- BIM Effectively Supports MILCON Transformation
  - Support reduced schedules and cost savings
  - BIM benefits design and construction activities
  - Goal to accrue O&M benefits
  - Will reuse BIM models for standard facility designs

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BIM Platform Issues

- USACE will reuse BIM models for our Standard Designs
- Developed “vendor neutral” standards for RFP
  - BIM language developed in concert with industry partners
- Want BIM vendors to work toward interoperability
  - USACE participates in NIBMS / BuildingSMART efforts

buildingSMARTalliance™

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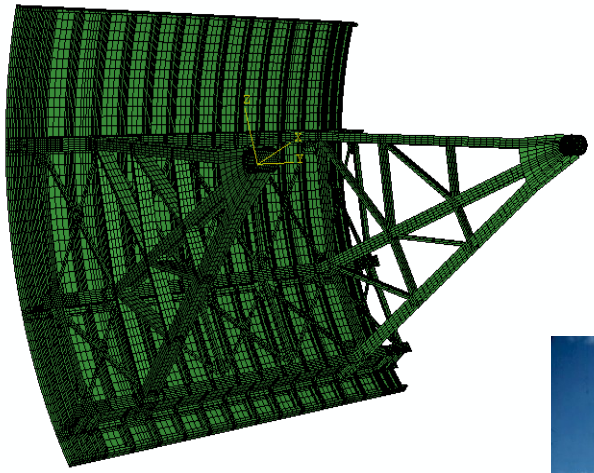
USACE BIM Examples

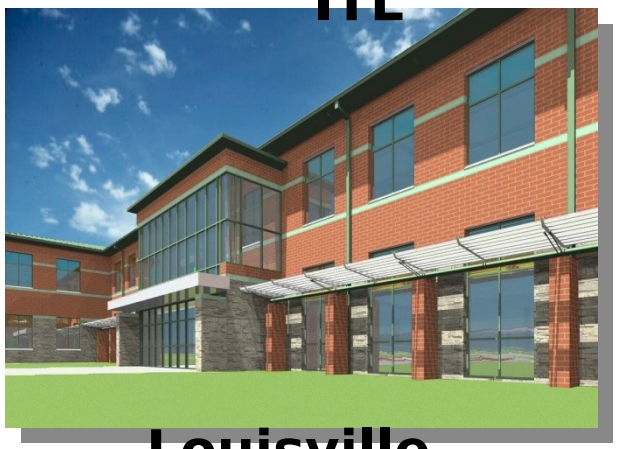
Ft. Lewis



L&D 22

ERDC ITL

Iraq Prison



Louisville

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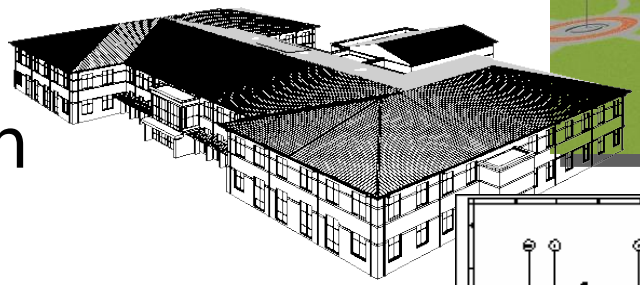
BIM Update

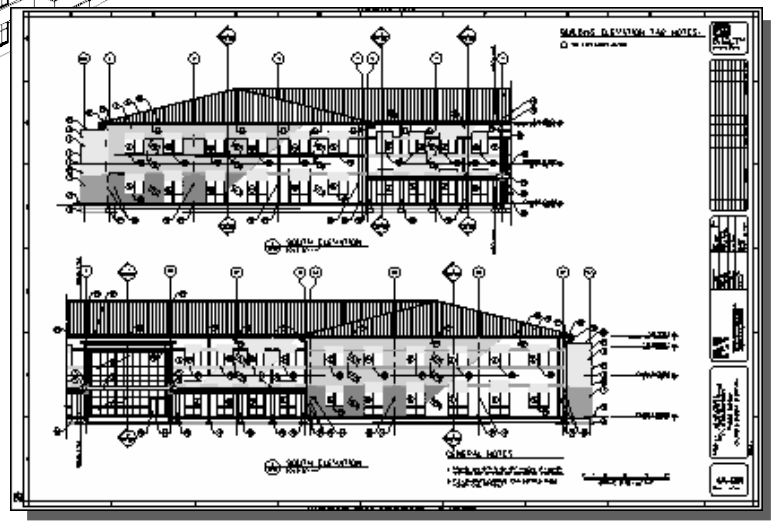
- FY08 USACE BIM Contract Language in MT Model RFP



- BIM Platform

  Options:

  - If CoS Facility:
    - Bentley BIM deliverables required
  - All other projects:
    - Platform neutral
    - *(Platform may be justified by the specific project requirements)*



Army Reserve Center BIM, Courtesy Mason & Hanger Group

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Opportunities for Tilt-Up Industry

Dormitories
Lackland AFB, Texas

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Opportunities for Tilt-Up Industry

Warehouse
Tinker AFB, Oklahoma

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Opportunities for Tilt-Up Industry

Defense Medical Logistics Complex
Fort Detrick, Maryland

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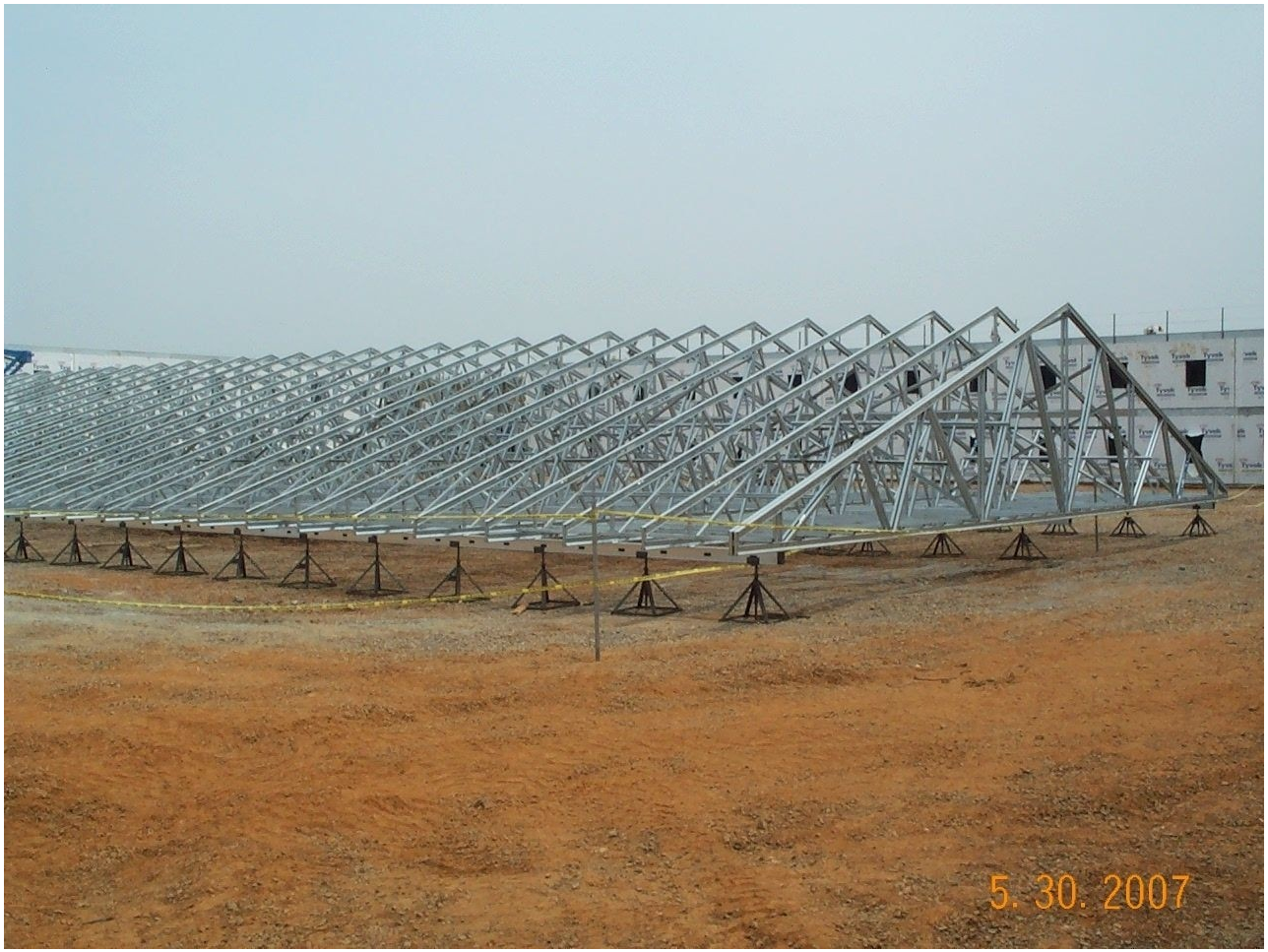
Ft Campbell Assembling Roof Trusses



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Ft Campbell Roof System Lift

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Opportunities for Industry

- http://www.hq.usace.army.mil/hqhome/
- http://www.fedbizopps.gov/
- http://www.hq.usace.army.mil/cemp/milcontrans/milcontransformation.htm

Comments / Questions!??